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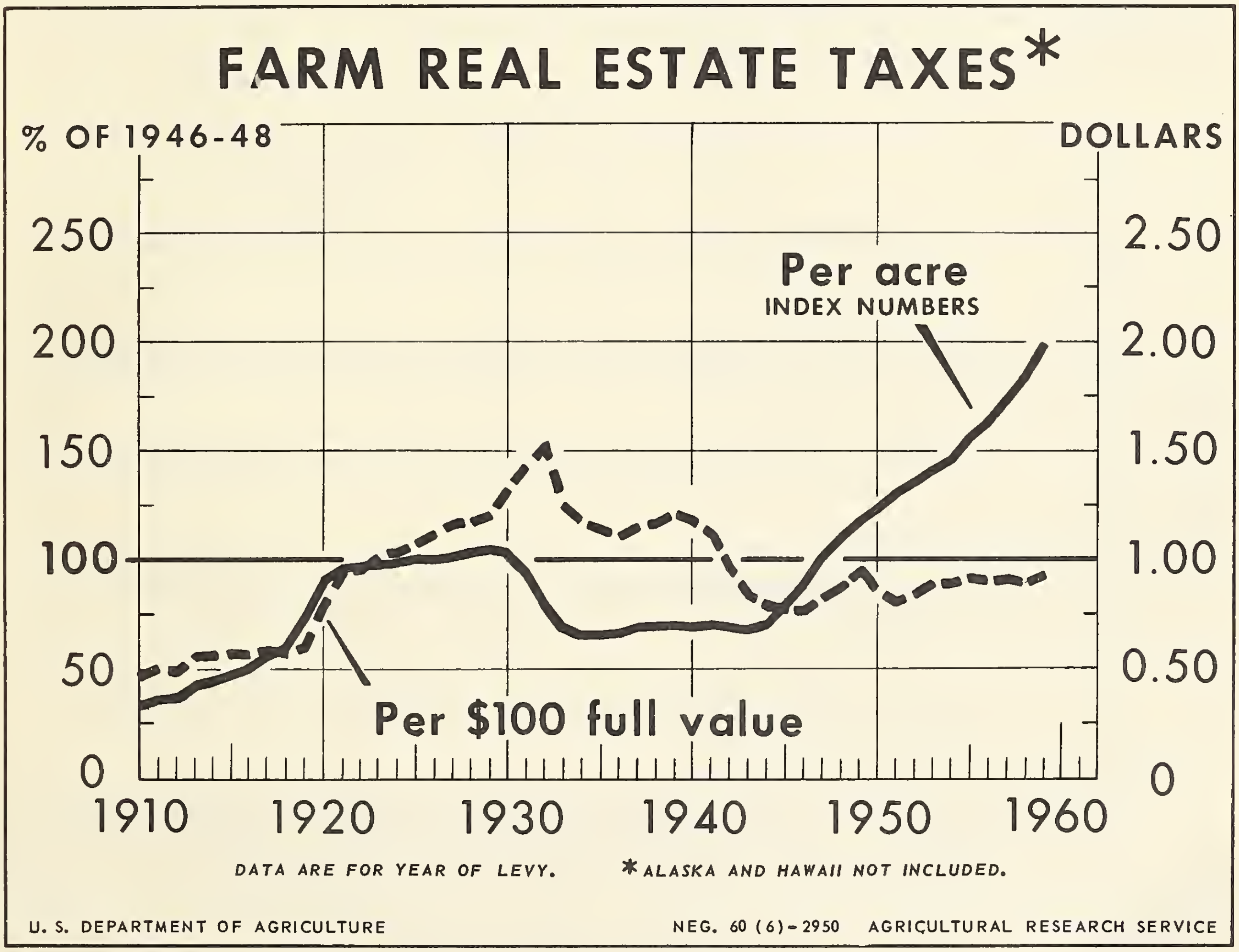
THE FARM COST SITUATION

Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

ARS 43-135 (FCS 29) NOVEMBER 1960



In the last decade, taxes have risen faster than have prices paid for any other major group of farm cost items. Since 1947, taxes per acre have set new records each year, and they are expected to do so again in 1960 and in 1961.

Goods and services used in production: Index numbers of cost rates and prices paid by farmers, United States

(1947-49=100)

Year or period	Commodities, interest, taxes, and wage rates	Commodities only	Feed	Livestock	Motor supplies	Motor vehicles	Farm machinery	Farm supplies	Building and fencing materials	Fertilizer	Seed	Wage rates
Average:												
1910-14	39	42	43	29	---	---	42	42	34	70	41	23
1915-19	59	63	68	44	---	---	54	70	48	101	62	34
1920-24	65	61	60	33	---	---	65	77	57	101	60	42
1925-29	65	61	58	44	94	49	64	73	54	92	60	43
1930-34	50	47	39	25	74	49	61	61	47	75	40	28
1935-39	49	52	45	36	74	56	64	60	49	71	49	28
1940	49	52	43	41	71	56	64	62	49	69	42	30
1941	53	55	47	46	74	59	65	66	53	69	40	35
1942	60	62	57	54	79	64	69	73	58	76	54	46
1943	68	69	68	61	81	67	71	82	60	81	68	61
1944	73	73	75	58	82	73	73	86	64	83	77	74
1945	77	74	74	63	82	75	74	87	66	84	79	83
1946	83	81	87	72	84	77	76	88	72	85	81	90
1947	95	95	102	90	92	90	86	95	93	93	93	97
1948	104	105	109	111	103	100	101	100	104	102	109	103
1949	101	100	89	99	105	110	113	105	103	105	98	100
1950	104	104	91	116	106	110	115	105	105	101	94	99
1951	115	115	102	141	111	118	124	112	117	106	96	109
1952	117	116	108	118	112	123	129	119	118	109	109	117
1953	111	108	98	85	114	122	130	116	118	110	99	120
1954	111	108	98	87	116	123	130	112	118	110	93	118
1955	110	106	91	85	117	122	131	110	120	109	98	120
1956	111	106	89	79	119	127	135	111	125	106	86	124
1957	114	108	87	89	124	136	142	112	129	107	89	130
1958	117	111	86	1/ 109	123	142	148	112	130	107	88	134
1959	119	112	86	109	124	147	156	111	133	106	84	142
July	1/ 119	112	86	110	---	145	---	---	---	---	---	144
Aug.	119	112	86	108	---	---	---	---	---	---	---	---
Sept.	119	112	84	107	124	144	158	111	133	106	84	---
Oct.	118	111	84	103	---	---	---	---	---	---	---	140
Nov.	118	111	84	100	---	147	---	---	---	---	---	---
Dec.	118	111	84	98	125	152	158	111	133	---	---	---
1960:												
Jan.	120	112	85	103	---	149	---	---	---	---	---	147
Feb.	120	112	85	104	---	---	---	---	---	---	87	---
Mar.	121	113	85	109	124	147	159	111	133	---	87	---
Apr.	122	113	86	113	---	---	---	---	---	106	88	151
May	121	113	86	109	---	---	---	---	---	---	88	---
June	120	112	85	102	124	145	159	112	133	106	---	---
July	120	111	84	97	---	145	---	---	---	---	---	147
Aug.	119	111	84	95	---	---	---	---	---	---	---	---
Sept.	119	111	84	97	126	143	161	112	132	107	88	---
Oct.	118	111	83	98	---	139	---	---	---	---	---	143

1/ Revised.
Agricultural Marketing Service.

THE FARM COST SITUATION

Approved by the Outlook and Situation Board, November 4, 1960

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THE GENERAL SITUATION

The rise in total farm production expenses in the United States leveled off this year, and little change is expected in 1961.

Production expenses for goods and services of nonfarm origin generally were about the same or slightly higher in 1960 compared with 1959. Total wages paid to hired labor were about the same, but interest payments and taxes rose sharply. Expenditures for livestock and feed, which were obtained largely from other farmers, were lower in 1960 than in 1959.

Because of the increase in average size of farms, expenditures per farm continued to rise. Costs and returns on eight types of farms, widely scattered throughout the country and representative of much of U. S. agriculture, indicate that production expenses were generally higher in 1960 than in 1959; increases ranged up to 12 percent on Intermountain cattle ranches where, because of the drought, more hay was bought at higher prices.

In the first 10 months of this year, prices paid by farmers in the United States for production items, including interest, taxes, and wage rates, averaged about a third of 1 percent higher than a year earlier. Prices paid for farm machinery were about 3 percent higher, and wage rates of hired labor averaged about 4 percent higher than a year earlier. Taxes were 8 percent higher than a year ago, and interest payments per acre on total mortgage indebtedness were nearly 10 percent higher than last year. Prices of most other goods and services of nonfarm origin were about the same as in 1959.

With carryover of feed at an all-time high and production of another near record crop of both feed grains and forage this year, feed prices have averaged slightly lower than a year ago. Prices of feeder and replacement livestock averaged about 8 percent lower so far this year. In October, prices of feeder cattle averaged 10 percent lower than a year earlier. Prices paid for feeder lambs and milk cows also were lower, but prices of feeder pigs, baby chicks and turkey poults were higher than a year ago.

Prices paid for major groups of production items this fall compared with 6 months and a year ago were as follows:

Class of expenditures	Percentage change from 6 months ago	Percentage change from a year ago
Taxes (annual average)	1/	8
Farm machinery (Sept. 15)	2	2
Motor supplies (Sept. 15)	2	2
Fertilizer (Sept. 15)	1	1
Farm supplies (Sept. 15)	0	1
Seed (Sept. 15)	0	3
Real estate (July 1)	2/-1	3/1
Feed (Oct. 15)	-4	-2
Motor vehicles (Oct. 15)	-5	-4
Wage rates, seasonally adjusted (Oct. 1)	-6	2
Livestock (Oct. 15)	-13	-5

1/ Estimated on an annual basis only.
2/ Change from March 1960 to July 1960.
3/ Change from July 1959 to July 1960.

Capital used in farm production continued to expand. On January 1, 1960, the value of assets used in farm production totaled $157.3 billion. This represents more than $21,000 per farmworker, or a sixfold increase in the 20 years since 1940 (fig. 1). Much of the increase, of course, was caused by higher prices. But after adjusting these values for changes in prices, assets per worker in 1960 were still more than twice as great as in 1940.

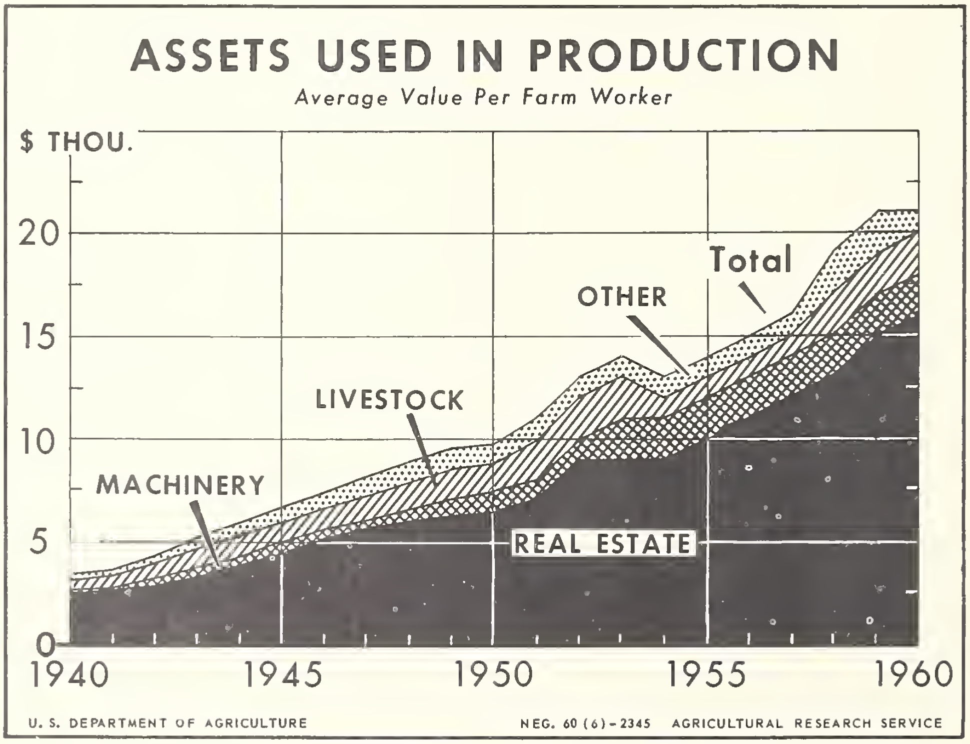

Figure 1

With the amount of capital used in farm production rising faster than other inputs, charges for the use of capital have become a relatively larger part of total farm costs. Part of the increasing cost of capital is reflected in the higher interest charges; the total interest bill on farm mortgage debt was nearly 2 3/4 times as high in 1960 as in 1947-49. Interest costs of other borrowed capital are at least as great. The equity capital used in agricultural production is 5.5 times as great as the borrowed capital.

Although year-to-year changes in costs and prices have not been great in recent years, the cumulative effect of short-term trends has produced significant changes in farm production costs and inputs. In 1960, prices paid by farmers for production goods and services were nearly 2 1/2 times as high as in 1940, and quantities of goods and services bought or hired were about 60 percent greater. Total capital used in farm production was 4 times as great as in 1940, and physical assets used in production were nearly a fourth larger. The number of hours of operator and family labor used on farms, however, has declined more than a third in the 20-year period.

FARM LABOR

Moderately higher farm wage rates are anticipated in 1961. However, the total wage bill will not differ greatly from that in 1960 because less labor will be hired. In line with changes during the last several years, the rate of decline in numbers of operators and family workers on farms is expected to be greater than the rate of decline in number of hired workers (table 1). Machinery and other production inputs will continue to be substituted for labor on farms.

On October 1 this fall, farm wage rates in the entire country averaged 82 cents an hour, about 2 percent higher than on October 1, 1959. Workers in some parts of the country did not share in the increase. In the two south-central regions, the composite rate per hour was slightly lower on October 1, 1960, than a year earlier; during the earlier part of 1960, however, wage rates were higher than in 1959, and the annual rate will average higher in 1960 than in 1959. Farm wage rates rose more than 3 cents per hour in the last year in the Mountain and Pacific Regions. Much of the upward climb in the latter region resulted from the increase of about 4 cents per hour in California. Part of the increase in this State may have resulted from efforts of labor unions to organize farmworkers. Most of this activity was among workers harvesting cherries, pears, peaches, and tomatoes in the San Joaquin and Sacramento Valleys. Expanding nonfarm employment in California has attracted farmworkers and also contributed to the rise in farm wage rates.

Reports prepared by the Bureau of Employment Security, U. S. Department of Labor, for areas employing Mexican nationals indicate that for many jobs, prevailing piece rates are higher this year than in 1959. In August 1960, for example, the prevailing rate for handpicking seed cotton in the Lower Rio Grande Valley of Texas was $2.50 per hundredweight compared with $2.30 a year earlier. While not universal, similar increases have occurred in 1960 in other areas and for other jobs, such as vegetable harvesting and fruit picking. Because of the diversity in kinds of rates involved, changes in piece rates may not be fully reflected in the data reported in table 1.

During the last several years, the spread in wage rates has widened among different parts of the country (fig.2). In 1954, the Pacific Region was the only

Table 1. - Labor used on farms, wage rates and related data, United States, 1940-60 1/

Year	Farm employment			Man-hours of farmwork	Farm output index 1947-49=100		Hourly wage rates	
	Total 2/	Family 2/	Hired		Total 3/	Per man hour	Farmworkers 4/	Industrial workers 5/
	Thousands	Thousands	Thousands	Millions			Dollars	Dollars
1940------	10,979	8,300	2,679	20,467	82	67	0.17	0.66
1941------	10,669	8,017	2,652	20,043	85	71	.21	.73
1942------	10,504	7,949	2,555	20,581	96	78	.27	.85
1943------	10,446	8,010	2,436	20,298	94	78	.36	.96
1944------	10,219	7,988	2,231	20,164	97	81	.43	1.02
1945------	10,000	7,881	2,119	18,841	95	84	.48	1.02
1946------	10,295	8,106	2,189	18,082	98	91	.52	1.09
1947------	10,382	8,115	2,267	17,196	95	92	.55	1.24
1948------	10,363	8,026	2,337	16,833	104	104	.58	1.35
1949------	9,964	7,712	2,252	16,201	101	104	.56	1.40
1950------	9,926	7,597	2,329	15,137	101	112	.56	1.46
1951------	9,546	7,310	2,236	15,170	104	114	.62	1.59
1952------	9,149	7,005	2,144	14,425	108	126	.66	1.67
1953------	8,864	6,775	2,089	13,897	109	131	.67	1.77
1954------	8,639	6,579	2,060	13,107	109	140	.66	1.81
1955------	8,364	6,347	2,017	12,751	113	149	.68	1.88
1956------	7,820	5,899	1,921	12,132	114	158	.70	1.98
1957------	7,577	5,682	1,895	11,379	114	168	.73	2.07
1958------	7,525	5,570	1,955	11,103	124	188	.76	2.13
1959------	7,384	5,459	1,925	11,048	126	191	.80	2.22
1960 6/---	7,073	5,210	1,863	10,517	129	205	.82	2.29

1/ Data on farm employment and farm wage rates are from the U. S. Agricultural Marketing Service.

2/ Includes farm operators and members of their families.

3/ Net calendar-year production for eventual human use.

4/ Composite or hourly equivalent of all types of rates, excluding perquisites.

5/ Average hourly earnings of production workers in manufacturing. From the U. S. Bureau of Labor Statistics. Figure for 1960 is average of first 9 months.

6/ Preliminary. Estimates of farm output and man-hours based on October 1960 "Crop Production" report and other releases of the U. S. Agricultural Marketing Service.

one in which wage rates averaged more than a dollar an hour and since then they have increased more in this region than elsewhere except in the New England Region. In 1954, however, rates were low in the southern regions, and the increase since 1954 has been less in the South than in other parts of the country. These wage rates are cash wages only. This year, hired farmworkers will receive a half billion dollars in meals, housing, and other perquisites, in addition to about $2.5 billion in cash wages.

Higher wage rates and steady employment continue to attract farmworkers to nonfarm jobs. Average earnings of production workers in manufacturing plants will reach $2.29 per hour this year. This is 7 cents, or 3 percent, more than the hourly rate in 1959.

Estimates for the first three quarters of this year indicate that there are more than 4 percent fewer workers on farms than there were in 1959. As has been true for a number of years, the greatest reduction, both in numbers and on a percentage basis, is in operators and unpaid family workers. They will drop almost 5 percent from a year ago compared with a 3-percent decrease in average monthly employment of hired workers.

This differential in rate of decrease means that hired workers are becoming a slightly larger part of the farm labor force. They will make up a little more than 26 percent of the average monthly employment this year as compared with about 23 percent in 1950.

Reduction in number of farms and advances in technology, particularly mechanization, are significant factors in the reduction in numbers of farmworkers. Of these, the drop in number of farms has considerably more effect on numbers of operators and family workers. Gains in technology also reduce numbers of these kinds of workers, but the effects of advances in technology are often more pronounced on hired than on operator and family workers.

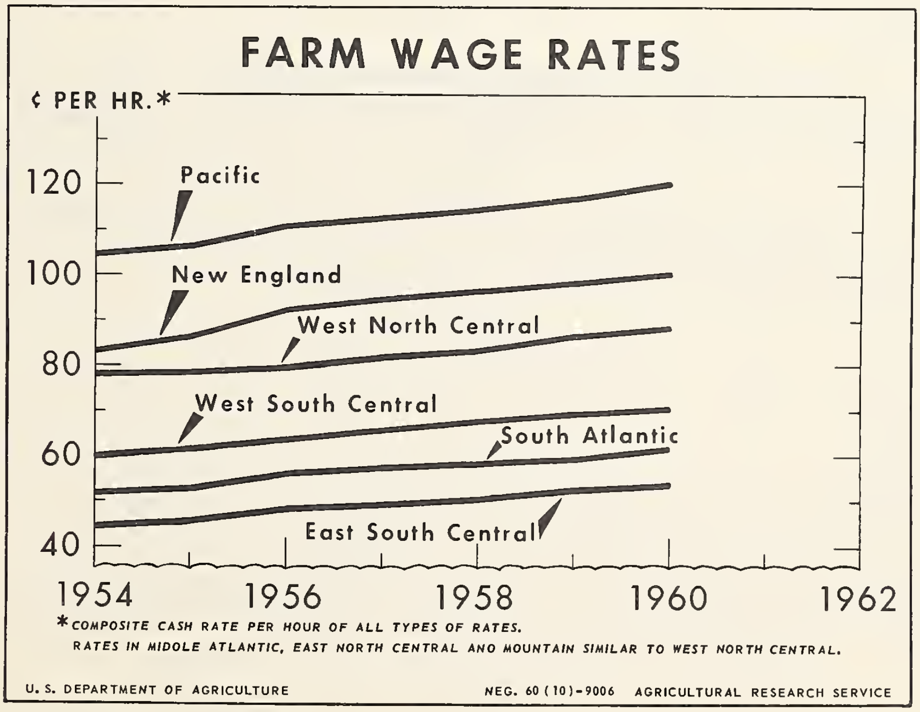

Figure 2

Considerably fewer foreign workers have been contracted or admitted for temporary farmwork this year than in any recent year. Near the end of September, 1960, 273,300 workers had been contracted, whereas at the same time last year, 386,000 foreign nationals had been imported for seasonal farmwork, according to the reports of the Bureau of Employment Security, U. S. Department of Labor. In September of this year, 6.5 percent of the hired workers on farms were foreign contract workers. The law providing for the Mexican portion of the program for importing foreign nationals for temporary farmwork was extended through 1961 by the Second Session of the 86th Congress. Workers from Mexico will be available for seasonal farmwork next year in areas certified as having an insufficient supply of workers from domestic sources.

FARM POWER AND MACHINERY

In 1961, prices of farm machinery and motor supplies are likely to rise above those in 1960, but the rise may not be any greater than that from 1959 to 1960. The index of wholesale prices of new tractors, farm machinery, and equipment rose only 2 percent during the last year, compared with an annual increase of around 4 percent for several years prior to 1960. Most of the advance usually occurred from September to November (fig. 3). Prices of motor supplies have changed little in the last 5 years.

Costs of repairs and operation of motor vehicles excluding fuel and oil have increased sharply in the last two decades (table 2). These costs were 5.2 percent of the total production expenses in 1959 compared with 3.9 percent in the 1947-49 period. A greater share of the gross farm income was

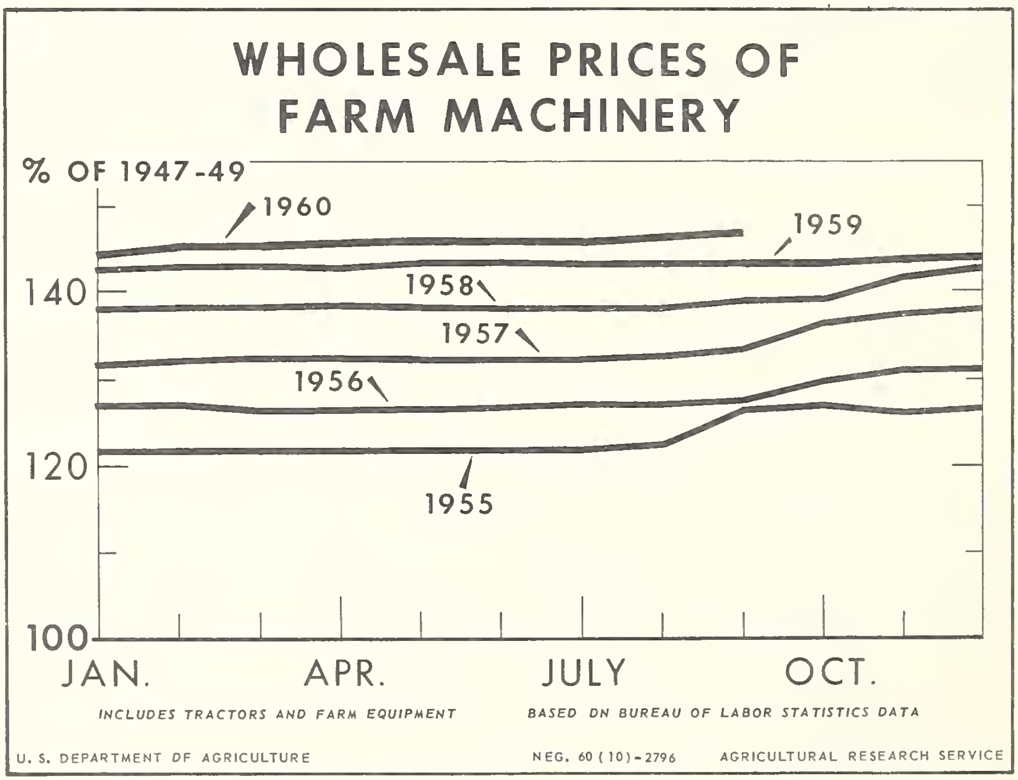

Figure 3

Table 2. - Power and machinery: Numbers of units on farms, prices, repair and operation of motor vehicles and value of manufacturers' shipments of farm machinery and equipment, United States, 1940-60

Year	Number of units on farms Jan. 1			Index of prices paid by farmers 1947-49=100			Farmers' expenditures for repair and operation of motor vehicles 4/	Index 1947-49=100	
	Workstock: 3 years old and over	Tractors 1/	Motor-trucks	Motor supplies 2/	Farm machinery	Motor vehicles 3/		Value of domestic shipments for farm use 1/ 5/	Wholesale prices of tractors, farm machinery, and equipment 6/
	Thous.	Thous.	Thous.				Mil. dol.		
1940	12,209	1,567	1,047	71	64	56	229	---	68.9
1945	10,598	2,354	1,490	82	74	75	497	60	72.9
1946	9,959	2,480	1,550	84	76	77	536	69	78.1
1947	9,176	2,613	1,700	92	86	90	635	89	90.3
1948	8,490	2,821	1,900	103	101	100	729	107	101.4
1949	7,811	3,123	2,065	105	113	110	746	104	108.3
1950	7,181	3,394	2,207	106	115	110	767	104	110.7
1951	6,522	3,678	2,310	111	124	118	914	118	120.1
1952	5,716	3 907	2,410	112	129	123	998	101	121.6
1953	5,027	4,100	2,520	114	130	122	988	93	122.3
1954	4,451	4,243	2,610	116	130	123	941	77	122.2
1955	3,992	4,345	2,701	117	131	122	993	85	123.2
1956	3,624	4,515	2,800	119	135	127	1,161	71	127.6
1957	3,271	4,600	2,900	124	142	136	1,265	73	133.5
1958	3,067	4,685	2,985	123	148	142	1,296	84	139.0
1959	2,859	4,750	3,060	124	156	147	1,369	87	143.4
1960 7/	2,801	4,770	3,110	8/124	8/158	8/145	---	7/70	8/145.4

1/ Excludes garden tractors. 2/ Includes fuel, oil, grease, tires, tubes, batteries, and spark plugs. 3/ Includes tractors, automobiles, and motortrucks. 4/ Operating costs exclusive of gasoline and oil (for automobiles in period 1942-45, 50 percent of costs, 40 percent thereafter). 5/ Based on data published in Current Industrial Reports, U. S. Bureau of the Census, values at 1947-49 prices. Includes tractors, farm machinery, and equipment; excludes motortrucks, automobiles, and attachments and parts for tractors. 6/ Bureau of Labor Statistics, U. S. Dept. of Labor. 7/ Preliminary. 8/ Average of first 9 months.

required for this expenditure also -- 3.6 percent in 1959 compared with 2.1 percent in 1947-49. The average cost per vehicle rose from $109 in 1947-49 to $144 in 1959.

In buying equipment, each farmer has the alternative of choosing between new and used machines. From indications at auctions, sales volume and prices of used equipment have been relatively high during the last 2 years. Prices of tractors manufactured in 1952-53 have changed little since 1958; prices of newer models, however, have declined to some extent.

Shipments of new machines and equipment for farm use were at a low level in 1960. Smaller shipments of wheel tractors were mainly responsible for the decline (table 3). About 45 percent fewer tractors were produced and shipped through August 1960 than in the comparable period of 1959. Sales of tractors to farmers, however, declined less. Inventories in the hands of dealers and manufacturers were reduced about 22 percent in the first 8 months of 1960, compared with a 13-percent increase in inventories in the same period of 1959.

The swing to tractors designed for diesel fuel continues (table 3). Diesel tractors must be used 500 to 600 hours annually before the higher initial price can be offset in fuel savings. When diesel tractors are used only 200 to 300 hours per year largely for plowing and other heavy jobs, total costs are likely to be higher than for gas tractors.

Sizable increases in shipments of machines and equipment used mainly for materials handling continued through 1959 (table 4). Hay conditioners and silo unloaders showed the greatest gain since 1955. As mechanization progressess, farmers can increase the size of their operations with the same labor force and thereby make more efficient use of labor as labor costs continue to rise. Consequently, mechanization, particularly of farmstead operations, is expected to increase further in 1961.

FEED

With the harvest of another near record feed grain crop in prospect, feed prices are expected to edge a little lower during the 1960-61 feeding year than a year earlier. High-protein feed prices are expected to average a little lower during the coming fall and winter than in the same period a year ago. Meat meal and tankage prices are substantially lower than a year ago. Again, production of feed concentrates is expected to exceed disappearance.

Tremendous supplies of feed grains and somewhat curtailed livestock numbers will affect the livestock-feed situation in the current feeding year, 1960-61. Based on October 1 indications, the total supply of all feed concentrates available for the feeding year 1960-61 will be about 7 million tons greater (2.5 percent) than a year earlier, thus continuing the upward trend of the last several years (table 5). The total supply is estimated at about 270 million tons, 47 percent more than the 1952-56 average, and 6 percent more than the 1957-60 average. Carryover stocks of feed grains at the end of the 1960-61 feeding year will be about 82 million tons. This is more than twice the average carryover from 1952-56 and about 15 percent more than the 1957-60 average.

Table 3. - Production of wheel tractors, estimated average maximum belt horsepower and percentage distribution by type of fuel, United States, specified years, 1940-60 1/

Year	Production	Average maximum belt horsepower	Fuel type: Gasoline	Fuel type: Diesel	Fuel type: Liquefied petroleum gas
	Thousands	Horsepower	Percent	Percent	Percent
1940	249	26	2/	2/	2/
1945	244	27	2/	2/	2/
1950	497	29	2/	2/	2/
1951	564	29	2/	2/	2/
1952	415	31	94	6	3/
1953	390	35	93	6	1
1954	246	39	87	11	2
1955	330	40	84	13	3
1956	215	40	82	13	5
1957	229	45	78	16	6
1958	241	46	72	23	5
1959 4/	260	46	65	30	5
1960 5/	134	46	59	37	4

1/ Based on data published in "Current Industrial Reports," U. S. Bureau of the Census. (Domestic Production). 2/ Not available. 3/ Included with gasoline. 4/ Preliminary. 5/ Projected estimate for 1960 based on production through August.

Table 4. - Shipments of farm machines and equipment used mainly for materials handling, 1955-59

Item	Units shipped: 1955	1956	1957	1958	1959	Percentage increase 1955 to 1959
	Number	Number	Number	Number	Number	Percent
Hay conditioners	447	1,347	1/	31,147	48,798	10,817
Silo unloaders	1,524	2,501	3,548	5,487	9,696	536
Power unloading racks (for wagons and trucks)	6,427	5,608	8,416	14,317	20,856	224
Automatic poultry feeders	4,761	7,384	14,366	16,602	15,179	219
Pipeline milking units (individual clusters)	8,494	14,643	17,738	16,164	23,014	171
Barn cleaners	4,949	8,051	8,613	11,867	12,373	150
Mechanical feeders	3,339	3,908	5,053	4,770	5,493	65
Elevators	163,289	167,998	174,187	207,382	206,282	26

1/ Not reported separately.

Table 5. - Supply and utilization of feed concentrates, and livestock fed, United States, 1937-60 1/

Year beginning Oct. 1	Supply				Utilization		Stocks of feed grains, end of year 3/	Number of grain-consuming animal units	Per grain-consuming animal unit		
	Stocks of feed grains, beginning of year	Production of feed grains	Other feed concentrates 2/	Total supply	Seed, human food, industry, and export	Concentrates fed to livestock			Production of feed grains	Supply of concentrates	Concentrates fed
	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million tons	Million units	Tons	Tons	Tons
Average:											
1937-41	16.9	99.3	19.9	136.1	12.1	104.9	19.9	153.1	0.65	0.89	0.69
1942-46	14.7	117.3	29.4	161.4	14.8	133.0	13.5	176.9	.66	.91	.75
1947-51	22.2	116.9	25.5	164.6	12.5	123.9	23.5	162.2	.72	1.01	.76
1952-56	32.2	124.4	27.1	183.7	18.4	127.4	38.0	160.7	.77	1.14	.79
1957-60	62.7	157.8	29.5	250.0	24.7	154.1	71.0	166.5	.95	1.50	.92
1952	20.1	119.7	27.9	167.7	16.9	122.7	27.0	158.8	.75	1.06	.77
1953	27.0	117.5	27.7	172.2	16.0	125.7	31.7	156.9	.75	1.10	.80
1954	31.7	123.9	26.2	181.8	18.5	126.1	39.1	161.7	.77	1.12	.78
1955	39.1	130.9	26.9	196.9	20.6	132.0	43.3	165.6	.79	1.19	.80
1956	43.3	130.2	27.0	200.5	19.9	130.6	48.9	162.0	.80	1.24	.81
1957	48.9	142.9	28.5	220.3	22.9	139.6	59.1	161.6	.88	1.36	.86
1958	59.1	157.6	29.8	246.5	25.7	153.5	67.7	170.4	.92	1.45	.90
1959 4/	67.7	165.6	29.8	263.1	25.2	160.8	75.0	167.9	.99	1.57	.96
1960 5/	75.0	164.9	29.9	269.8	25.0	162.3	82.0	166.0	.99	1.63	.98

[1] U. S. Agricultural Marketing Service, Grain and Feed Statistics, March 1960, page 2, and Feed Situation, October 1960.

[2] Includes byproduct feeds, imported grains, and domestic wheat and rye fed.

[3] Stocks do not necessarily equal supply less feed and other utilization because of a difference in the crop year for different feed grains.

[4] Preliminary.

[5] Preliminary estimates based on indications in October 1960.

A record supply of the four feed grains -- corn, oats, barley, and sorghum grains -- totaling nearly 240 million tons is in prospect for 1960-61. Production from the 1960 crop is estimated to be about 165 million tons, about the same as last year. Disappearance of feed grains is expected to be about 147 million tons, of which about 134 million tons will be fed to livestock.

The 1960 soybean crop of 562 million bushels (16.9 million tons) is about 5 percent greater than the 1959 crop. As the October 1, 1960, carryover was only 30 million bushels compared with 62 million last year, the total supply is expected to be about the same as a year ago. This will permit the quantity of beans for crushing to be about the same as in the year ended September 30. Production of soybean oilmeal in 1959-60 totaled about 9.2 million tons.

The supply of the other oilmeals -- cottonseed, linseed, peanut, and copra -- is expected to be about the same as last year. Although the 1960 flaxseed crop is about 32 percent larger than last year, carryover stocks were much smaller.

Feed grain prices have averaged about 5 percent lower during the last quarter of the 1959-60 feeding year than during the same period a year ago (table 6). These prices may continue to be a little lower this fall, based on current prospects for large supplies of feed and fewer animals on farms.

The record supply of 6,059 million bushels of corn (169.7 million tons) is ample to leave a carryover of about 2 billion bushels at the end of the 1960-61 feeding season. Disappearance of corn will be about the same as in the year ended last September when about 3.6 billion bushels of corn were fed to livestock.

Consumption of oats and barley is expected to continue at about the level of 1959-60. For both these feeds, consumption may exceed production, and the carryover next October may be lower. Prices are expected to continue strong compared with the price of corn.

Although disappearance of sorghum grain has increased greatly, it is still less than the annual production of the crop. Carryover on October 1, 1961, will likely be greater than on October 1, 1960. Prices of sorghum grains have been relatively lower than prices of corn during the 1959-60 feeding year and likely will continue in this relative position during the 1960-61 feeding year.

The number of grain-consuming animal units reached a high point of the current cycle during the 1958-59 feeding year when 170.4 million units were on farms. In the last 2 years, they declined by 4.4 million units, largely as a result of reductions in numbers of hogs and poultry. Hogs declined by 5.2 million units during the last 2 years, hens and pullets by 2.4 million, and chickens for replacement purposes by about 0.5 million units. These reductions more than offset an increase of 3.1 million units of cattle on farms.

The total hay supply for 1960-61 was estimated in October at 136 million tons, only 2 percent smaller than last year. Although the 1960 crop of 119 million tons was 5 percent above last year and 3 percent above the 1954-58 average, the carryover on May 1 was down 33 percent from a year earlier. The number of roughage-consuming animal units, particularly of beef cattle, has increased about 11 percent in the last 3 years, reaching a total of 102.5 million in 1960-61. The supply of hay per roughage-consuming animal unit is 1.3 tons, down 4 percent from last year and 6 percent below the 1954-58 average.

Table 6. - Average prices of feed, United States, Oct. 15

Item	Unit	1958	1959	1960 1/	1960 as percentage of 1959
		Dollars	Dollars	Dollars	Percent
Prices received by farmers:					
Corn	Bushel	1.04	0.99	0.99	100
Oats	do.	.56	.65	.60	92
Barley	do.	.86	.87	.84	97
Sorghum grain	Cwt.	1.57	1.48	1.42	96
Hay, baled	Ton	18.00	20.50	20.20	99
Prices paid by farmers:					
Mixed dairy feed, 16 percent protein	Cwt.	3.57	3.58	3.56	99
Laying mash	do.	4.45	4.35	4.26	98
Broiler mash	do.	4.97	4.69	4.55	97
Cottonseed meal	do.	3.79	3.90	3.96	102
Soybean meal	do.	4.32	4.12	3.96	96
Bran	do.	2.66	2.76	2.77	100
Middlings	do.	2.79	2.93	2.85	97
Alfalfa hay, baled	Ton	28.90	30.60	31.00	100
Average value of concentrate ration fed to poultry and milk cows: 2/					
Fed to poultry	Cwt.	3.37	3.31	3.27	99
Fed to milk cows, in milk-selling areas	do.	2.89	2.85	2.88	101
Fed to milk cows, in cream-selling areas	do.	2.35	2.36	2.35	100

1/ Preliminary.
2/ Value of corn, oats, oilmeal, millfeed, commercial mixed feed, and so on, whic make up 100 pounds of "grain" ration.

At the national level, feed inputs per unit of production have been decreasing for sheep, grain-fed cattle, turkeys, eggs, and broilers (fig. 4). Feed inputs per unit of production have increased for other cattle, hogs, and chickens raised for replacements. Feed inputs per unit of milk produced have decreased except for the years 1957 and 1958, when much larger amounts of grain were fed to dairy cows.

Changes from a year ago in gross returns per $1.00 of feed costs based on October 15 prices, for eight kinds of livestock and poultry, have varied from declines of 10 and 7 percent for beef-raising and sheep-raising, respectively, to increases of 1, 5, 11, 16, 33, and 35 percent for milk, butterfat, broilers, turkeys, eggs, and hogs (table 7).

Table 7. - Gross returns from livestock enterprises per $1.00 of feed cost based on prices Oct. 15, United States, 1958-60 1/

Livestock enterprise or product	Oct. 15, 1958	Oct. 15, 1959	Oct. 15, 1960	1960 as percentage of 1959
	Dollars	Dollars	Dollars	Percent
Eggs	1.65	1.43	1.90	133
Broilers	1.14	1.14	1.26	111
Turkeys	1.49	1.43	1.66	116
Milk	2.36	2.27	2.30	101
Butterfat	1.61	1.48	1.55	105
Hogs	2.14	1.53	2.06	135
Sheep-raising	1.60	1.36	1.27	93
Beef-raising	2.62	2.36	2.12	90
		Index numbers (1947-56=100)		
Eggs	92	80	106	---
Broilers	79	79	87	---
Turkeys	85	82	95	---
Milk	115	110	112	---
Butterfat	114	105	110	---
Hogs	126	90	121	---
Sheep-raising	109	93	86	---
Beef-raising	147	133	119	---

1/ Quantities of feed used in calculating the cost of feed were as follows:

Eggs (per dozen)	7 lbs. poultry ration
Broilers (per lb.)	2.8 lbs. broiler mash
Turkeys (per lb.)	4.75 lbs. poultry ration
Milk (per cwt.)	31 lbs. concentrates, 110 lbs. hay equivalent
Butterfat (per lb.)	7.75 lbs. concentrates, 27 lbs. hay equivalent
Hogs (per cwt.)	7.5 bu. corn, 20 lbs. soybean meal
Sheep-raising (per cwt.)	2 bu. corn, 1,500 lbs. hay equivalent
Beef-raising (per cwt.)	3 bu. corn, 600 lbs. hay equivalent

In order to estimate and include costs of harvested forages and pasture for the above livestock enterprises, feeds from these sources were converted into hay equivalents and the price received by farmers for "all hay" was applied. It was assumed that feed nutrients from pasture cost one-fourth as much as the nutrients in hay. About one-third of the feed consumed by sheep is allotted to the production of wool. Basic data on amounts of feed fed are from U. S. Department of Agriculture, Production Research Report No. 21.

FEED INPUTS PER UNIT OF PRODUCTION

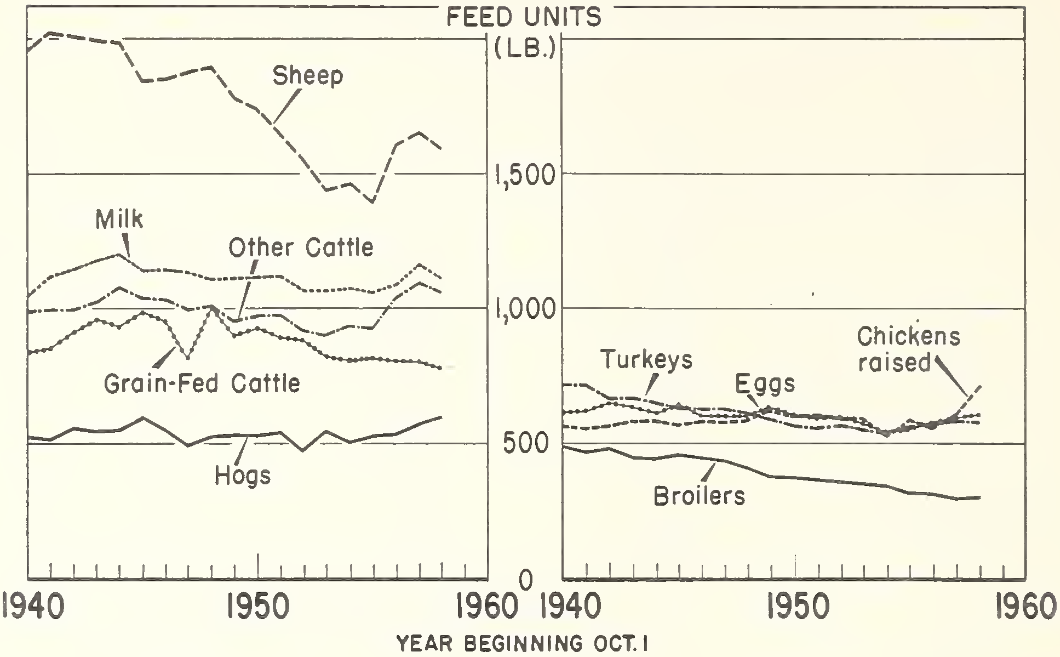

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Figure 4

LIVESTOCK

The index of prices paid by farmers for feeders and replacement livestock declined more than seasonally since April, and in mid-October it was about 5 percent lower than a year earlier (table 8). Little change in prices is expected in the next few months.

Table 8. - Prices paid by farmers for feeder and replacement livestock, 1958-60

Class	Oct. 1958	Oct. 1959	Apr. 1960	Oct. 1960
	Dollars	Dollars	Dollars	Dollars
Feeders and stockers:				
Cattle and calves, per cwt.	25.80	24.40	25.60	22.00
Lambs, per cwt.	22.90	18.40	20.40	16.30
Hogs, per cwt.	19.70	13.80	16.70	18.10
Baby chicks, straight-run, per 100	12.60	10.70	14.70	13.40
Turkey poults, each	.541	.497	.628	.555
Milk cows, each	220.00	228.00	226.00	215.00
Index, 1947-49=100	112	103	113	98

Prices paid for all livestock dropped nearly 15 percent from April to July this year. Since then they have remained steady, but prices paid for stocker and feeder cattle have been slightly lower than in July.

Total expenditures for feeder and replacement livestock will be lower in 1960 than in 1959. Shipments of stocker and feeder cattle, which make up a major part of all livestock purchases, have been below those of a year earlier. Shipments into the Corn Belt States were about 12 percent lower in the first 9 months of 1960 than in the comparable period in 1959. Furthermore, for the first 10 months of this year, prices paid for feeder cattle and calves have averaged 11 percent lower than a year earlier, and, in mid-October, they were 10 percent lower than a year ago.

In mid-October, prices of stocker and feeder steers were a little below the October average of the previous 5 years. They had dropped more in the last 6 months than prices of fat cattle, thus resulting in wider margins between prices of fat and feeder cattle (fig. 5).

Feeding price margins are usually wider for cattle bought in fall and winter than for those bought in spring and early summer (fig. 6). The margins shown in figure 6 are based on prices of feeders for the month shown and of slaughter steers 7 months later. The changes in margins, by seasons, reflect in part the differences in costs of producing beef with cattle bought in different seasons.

Opportunities for profits are usually greater with cattle bought in the fall than with those bought in the spring. Feed costs are higher during the winter, and cattle bought in the fall usually need some shelter and require more labor. However, prices of feeder cattle are usually lower in the fall, and price margins are greater on cattle bought at that time than on those bought in the spring. Farmers who buy feeders in the fall and who can obtain economical gains during the winter assume less risk of loss due to declining market prices than do those who buy cattle in the spring.

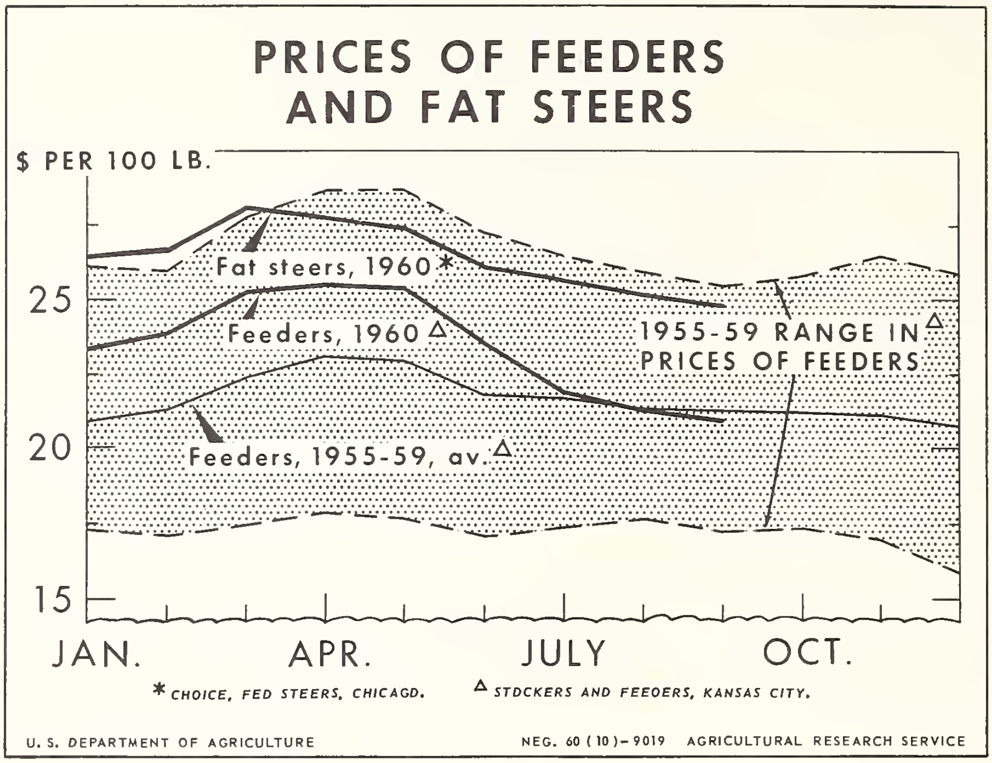
SEED

The average retail price of all field seeds is expected to be slightly higher next spring than it was in the spring of 1960. Higher prices are expected for clover, crested wheatgrass, certified alfalfa, and hybrid varieties of sorghum. Prices of most grass seeds and seed potatoes are expected to be lower. Retail prices of other field seeds are expected to change very little from the prices paid in 1960.

In the spring of 1960, retail prices of seeds averaged 4 percent higher than the previous spring. Notably higher prices were paid for potatoes, Kentucky bluegrass, ladino clover, tall fescue, alfalfa, crested wheatgrass, smooth bromegrass and sorghums. These seed prices, except those for bluegrass, also were higher than the average of the last 3 years.

Mid-September prices of seeds averaged 3 percent above those in September 1959. Prices of common and certified alfalfa and ladino and white clover increased most. Of the 27 kinds of field crop seeds for which mid-September retail prices are available, 11 were above the average of the last 3 years.

An adequate supply of hay, grain, and grass seed will be available for domestic use during the 1960-61 planting season. The expected supply of legume and grass seed available for this fall and next spring seeding is about 5 percent more



* CHOICE, FED STEERS, CHICAGO. △ STOCKERS AND FEEDERS, KANSAS CITY.

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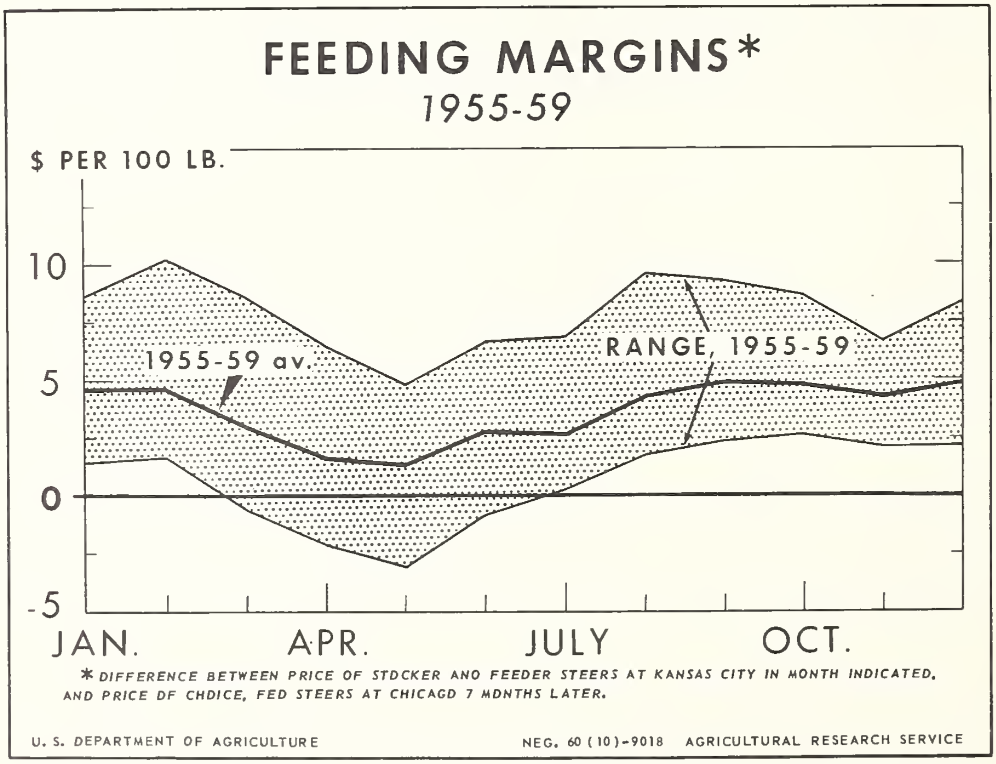
Figure 5



* DIFFERENCE BETWEEN PRICE OF STOCKER AND FEEDER STEERS AT KANSAS CITY IN MONTH INDICATED, AND PRICE OF CHOICE, FED STEERS AT CHICAGO 7 MONTHS LATER.

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Figure 6

than the average supply (carryover July 1 plus production) of the last 3 years. Favorable crop production during 1960 will provide adequate stocks for seeding of other field crops.

The expected supply of all cloverseeds this fall will be about 9 percent greater than the 1957-59 average. The supply of red clover seed has increased 19 percent above the supply of last year and 25 percent above the average of the last 3 years.

Production of bluegrass seed in 1960 is estimated to be more than 7 times the small production of 1959. However, the 1960 estimated production plus the smaller than average carryover on July 1, 1960, will increase the supply of bluegrass seed only 12 percent above the 1957-59 average. Supplies of most other grass seeds will be slightly above supplies in the previous planting season.

A smaller supply of alfalfa seed is likely. The carryover July 1 plus production is expected to be 7 percent below last year and 18 percent less than the average of the last 3 years. However, this supply is still about 20 percent above the 1957-59 average domestic disappearance.

A smaller supply of seed is also forecast for two winter cover crops. The carryover July 1 plus production of Austrian cowpea and vetch seed is expected to be about 6 percent less than the average of the last 3 years.

FERTILIZER

Consumption of primary plant nutrients for the crop season of 1959-60 is estimated at about 7 1/2 million tons -- about 1 percent above that for the preceding year. This record level of use is expected to be maintained or slightly exceeded for the year ending June 30, 1961. The trend toward higher analysis for both mixed fertilizer and straight materials will likely continue.

New manufacturing facilities are being constructed for production of more concentrated fertilizer materials. This reduces transportation costs per unit of plant nutrient. For some materials, it tends to lower unit nutrient costs at the factory, assuming that costs of raw material and other elements of manufacturing costs remain constant. Production capacity is adequate and is being expanded in anticipation that use of more fertilizer will continue to be profitable.

September prices paid by farmers for fertilizer averaged about 1 percent higher than a year ago and 7 percent above the 1947-49 average. Prices of major nitrogen and potash materials were again offered at seasonal discounts for the fall season this year, but announced prices for the spring season are above those prevailing last spring. On July 1, 1960, prices of concentrated superphosphate and phosphoric acid were raised about 2 percent.

Yield response information interpreted for application under present improved management in the Georgia-Piedmont area, where fertilizer use has long been established, indicates that at present prices, use of fertilizer is markedly short of what would be profitable on well-managed farms. In this area, use of fertilizer at levels to yield a marginal return of $1.50 per dollar spent for fertilizer in a 3-year rotation of 1 year of corn and 2 years of coastal Bermuda grass, would result in a return above the cost of fertilizer of about $42.00 per rotation acre. Crop production would be 42 bushels of corn and 10.8 tons of coastal Bermuda hay in the 3-year rotation. Application of about 250 pounds of plant nutrients costing $25.40 per rotation acre would maximize return on all costs of crop production if costs other than fertilizer were about $20.50 per rotation acre. If other costs were higher than $20.50, returns would be maximized with more fertilizer. At the rate indicated, a ton of plant nutrients would substitute for about 5.6 acres in producing any specified quantity of the output mix in this rotation.

Average use of fertilizer on corn and hay crops by all farmers in this area in 1954, if weighted into a 3-year rotation, represented a rate of about 75 pounds of plant nutrients per rotation acre costing, at current prices, about $7.50. Estimated 1953-55 average yields per acre fertilized were about 20 bushels of corn and 3.2 tons of legume and mixed hay, based on the percentage of the acreage of these crops fertilized in 1954.

BUILDING AND FENCING MATERIALS

Prices of building and fencing materials as a group have held steady in 1959 and 1960, and little change is expected next year.

Because prices of all materials do not follow a consistent pattern, however, the kinds of materials used for new structures and in repairs or maintenance of existing buildings will largely determine changes in building costs. For example, the cost of materials probably will not be appreciably greater in 1961 than in 1960 for constructing a new building of concrete blocks with an asphalt shingle roof, or for a coat of paint on an existing building.

Frequently, one kind of material can be substituted for another; therefore, the relative price movements of these substitutable materials can influence their utilization to a large extent. Since World War II concrete blocks have become a major farm building material. This has been due, at least partly, to the fact that prices of concrete blocks have increased the least of the selected materials listed in table 9.

Asphalt shingles have become a major item among roofing materials. Here again, the main reason seems to be that prices of asphalt shingles have increased considerably less than have prices of galvanized steel or composition roofing.

The increasing investment in farm improvements and the declining use of building materials produced on the farm have served to make the decisions related to the selection of materials increasingly important.

PESTICIDES

Wholesale prices of two pesticidal chemicals were reduced during the last year. Quotations for endrin are down about 20 percent from mid-1959, and lindane is about 11 percent lower than in February 1960. Prices of most other major pesticides have held steady; this includes copper sulfate, which had fluctuated considerably in 1959 in response to changes in the prices of copper metal.

Consumption of insecticides and fungicides was about normal in 1960, despite the severe winter and late spring which delayed farm operations over wide areas. Some exceptions were in the South Central States and parts of the South Atlantic area where the volume used was well below that of a year ago. Consumption

Table 9. - Selected building materials: Index numbers of prices paid by farmers, United States, 1945-60

Type of material and item	Index numbers (1947-49=100)								Percentage increase	
	1945	1950	1955	1956	1957	1958	1959	1960 1/	1945 to 1960	1955 to 1960
									Percent	Percent
Steel:										
Woven wire fence	68	112	138	150	163	170	173	175	157	26.8
Steel fenceposts	67	108	126	132	140	143	145	145	116	15.1
Barbed wire (2-point)	64	105	123	131	139	141	141	142	122	15.4
Galvanized steel roofing	64	110	114	119	123	123	125	127	98	11.1
Wood:										
Dressed lumber (No. 2 or better)	65	111	132	138	137	135	139	141	117	6.8
Framing (fir) 2 x 4 inch	62	108	121	124	123	122	127	126	103	4.1
Rough boards (No. 2 and better)	68	105	121	122	121	120	123	123	81	1.7
Fenceposts (4-inch)	82	114	132	135	140	143	147	149	82	12.9
Masonry:										
Portland cement	76	110	128	135	141	143	144	146	92	14.1
Concrete blocks	84	101	109	111	113	114	115	116	38	6.4
Miscellaneous:										
Paint (exterior)	63	96	111	114	120	122	121	122	94	9.9
Composition roofing	81	103	113	119	127	128	129	127	57	12.4
Asphalt shingles (roofing)	81	101	105	111	118	116	116	113	40	7.6
Prices paid for building and fencing materials	66	105	120	125	129	130	133	133	102	10.8

1/ Average of first 9 months.

in the Pacific Coast was somewhat below normal because of fewer insects. Use of pre-emergence herbicides continued to grow.

The cost of reducing or preventing damage by insects and plant diseases may vary greatly from season to season according to the weather and its influence on infestations. This is true especially for grasshoppers, boll weevil, potato blight, plant lice, and many other field-crop pests. The costs of treating fruit crops, on the other hand, are rather uniform from one year to the next. Orchard sprays are applied for the purpose of protection and in accordance with predetermined schedules.

Some examples of costs of pest control are provided by a Michigan study in which the total cost of pest control on apples was reported to be about $53 an acre in 1959. This compares with $4 for field corn and sugar beets, $9 for snap beans, $11 for tomatoes, $12 for cabbage, and $25 for cherries.

Although prices of pesticides may not have changed greatly, growers often have higher costs per acre for pest control when they switch to newer, more efficient chemicals. For the higher cost, however, more pests are controlled and frequently the quantity and quality of crops produced are increased.

FARM REAL ESTATE

The leveling off in prices of farm real estate that was first apparent in a few States last winter and early spring was extended over a major part of the country in the 4 months ended July 1, 1960. Values remained essentially unchanged in nearly half the States, and declined 2 percent or more in 14 States. The national index of average value per acre dipped to 172 (1947-49=100), 1 index point (0.6 percent) below March 1, 1960, and only 1 percent above July 1959.

Price changes in the year ended July 1, 1960, were more mixed than in the previous 12-month period. Values continued to advance 5 percent or more in several Southeastern States and in Washington and California but in the central part of the country, they changed very little (fig. 7). Values declined 2 percent or more in 7 states; the largest dips were in Michigan and Minnesota.

A further moderate decline can be expected in farm real estate prices this fall, and the decline may continue into 1961. Farm income will be about the same, or only a little higher in 1960 than in 1959, and not much change is expected in 1961. Inflationary pressures in the general economy have slackened and are likely to provide less support for land prices than in recent years. Higher interest rates on farm mortgage funds are currently causing some postponement in land purchases in the expectation of lower rates next year. Higher rates of return from alternative investments also have reduced the demand for land as an investment at current prices.

Land values have advanced about a third since 1954, even though farm income did not change much, except in 1958. As a result, values are now the highest in relation to income since the early thirties. They are currently 9.5 times net income, compared with 6.0 times income in 1950-54 and 6.2 times income in 1935-39. Net returns to land after all other costs are paid at prevailing market rates (including charges for operator and family labor at hired wage rates) averaged about 3 percent of current market values in 1959 and 1960. In 5 of the last 6 years, they were below the interest rates on farm mortgages.

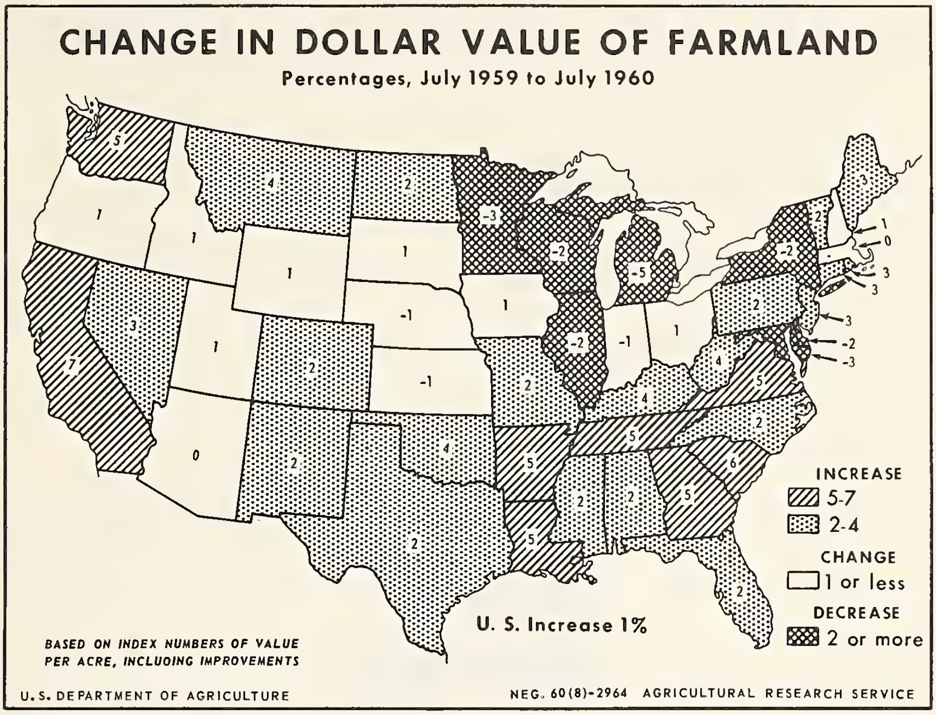
CHANGE IN DOLLAR VALUE OF FARMLAND
Percentages, July 1959 to July 1960
INCREASE
5-7
2-4
CHANGE
1 or less
DECREASE
2 or more
U. S. Increase 1%
BASED ON INDEX NUMBERS OF VALUE PER ACRE, INCLUDING IMPROVEMENTS
U. S. DEPARTMENT OF AGRICULTURE
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Figure 7

The high ratio of land value to farm income of the last 5 years has encouraged both buyers and sellers to use means of financing land transfers other than conventional mortgages. Land-purchase contracts, which permit lower equities than are required by most institutional lenders, have become the primary devices for low-equity financing. About a fourth of all land transfers in the year ended March 1, 1960, were financed by land contracts, about double the proportion of 10 years ago (fig. 8). Their use has increased most in the Corn Belt and Lake States, although they are widely used also in the Northern Plains and the West. In the Southeast, the deed of trust and vender's lien serve similar functions in low-equity financing.

The land contract differs from a mortgage primarily in that title remains with the seller until a specified proportion of the purchase price has been paid. Downpayments typically average about half those required in mortgage financing, but the average term of contracts is a little shorter than for mortgages. The primary advantages to the seller are in the tax savings on capital gains and the quick and inexpensive recovery of possession of the property in case of default.

Total interest costs are increased substantially by low downpayments; they can become a relatively large fixed charge against farm income. Lengthening the term of a loan also adds to total interest costs, even though it reduces annual payments. A land-purchase contract can be used as a means of building up the buyer's equity to the level required for conventional mortgage financing, thus adding 10 to 15 years to the normal term of 20 years that is available from most mortgage lenders. If interest rates are between 5 and 6

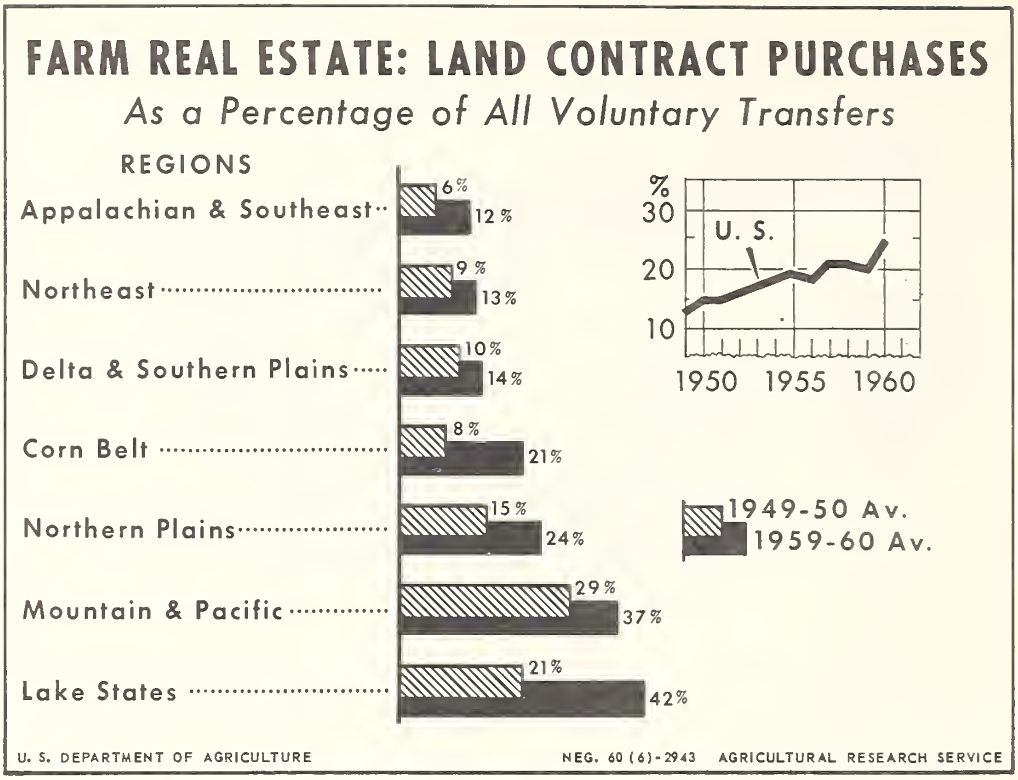

Figure 8

percent, total interest cost over the life of a 30-year repayment period is about equal to the amount borrowed.

Table 10 is designed to show the total interest costs involved with varying downpayments and for selected repayment terms and interest rates. For example, if a $30,000 farm were bought on a contract with 20 percent down and repayment over 20 years at 6 percent interest, the total interest cost would be $17,850 (30 x $595). If the repayment term were 30 years, interest costs would increase to $28,320. Thus, in addition to the downpayment, the total outlay needed to acquire unencumbered ownership of the farm would be $41,850 ($24,000 repayment of loan and $17,850 in interest) in the first instance, and $52,320 for the 30-year term. [1]

Apart from the higher interest costs associated with low downpayments and long repayment terms, the buyer also assumes the additional risk of a possible decline in the market value of his farm if he intends to refinance the purchase contract later. A lower market value of the property at that time would reduce its maximum loan value. When market values are rising, annual appreciation adds to the increase in equity from payments on the contract balance and makes it relatively easy to qualify for mortgage financing.

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[1] Because interest payments are a deductible expense for Federal income tax purposes, the net cost of interest would be somewhat less than is shown in the table. This would normally amount to 20 percent for taxpayers in the lowest taxable income bracket but would be more for the higher income levels.

In a period of declining market values, the annual buildup in equity, particularly in the first few years when interest payments are largest, may be partly or even wholly offset by the decline in the mortgage-loan value of the property. If such a situation should develop, progress toward ownership would be more difficult.

Table 10. - Total interest cost per $1,000 of purchase price, specified downpayments, interest rates, and repayment terms 1/

Downpayment as percentage of purchase price	Interest charges on loans with rate of					
	5 percent for -			6 percent for -		
	10 years	20 years	30 years	10 years	20 years	30 years
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
0	295	605	952	359	744	1,179
10	266	544	856	323	669	1,062
15	251	514	809	305	632	1,003
20	236	484	761	287	595	944
25	221	454	714	269	558	885

1/ Assuming uniform annual payments on a fully amortized loan.

INTEREST

Interest charges paid by farmers in 1960 will total about $1,340 million, of which $640 million is interest on loans secured by real estate mortgages and about $700 million is for interest on short-term loans. Interest payments in 1961 are expected to be slightly higher as a result of increased borrowing, but the rise will be smaller than that from 1959 to 1960.

Interest rates paid by farmers are higher this fall than a year ago, but indications are that moderate reductions by some lenders may occur before long. Rates for marketable securities in the central money markets have declined sharply since last winter. This has reduced the cost of money to the banks of the Farm Credit System and lowered the yields of alternative investments for other farm lenders. Yields on 9-month Federal intermediate credit bank debentures decreased from 5.25 percent as of February 1, 1960, to 3.10 percent as of September 1, 1960. A 5-year issue of Federal land bank bonds was sold in October 1960 to yield 4 percent compared with a 10-year issue sold in February 1960 to yield 5.125 percent.

Short-term interest charges totaled $617 million in 1959. On June 30, 1960, non-real-estate debt of farmers to banks and federally sponsored agencies was $7.5 billion, about 8 percent higher than a year earlier. A greater volume of loans and higher interest rates indicate higher interest charges in 1960.

A survey conducted by the American Bankers Association in September 1960 indicated that rates charged by banks on their non-real-estate loans to farmers had risen slightly during the preceding year. Rates charged by the production credit associations also increased during the first half of 1960, but, as shown by the following distribution of associations by rates charged, some of the associations have lowered their rates since midyear.

Rates	Feb. 1 1960	Apr. 1 1960	July 1 1960	Sept. 1 1960
	Percent	Percent	Percent	Percent
5.0 to 5.9	0	0	0	2
6.0 to 6.9	39	37	39	47
7.0 to 7.9	54	56	54	47
8.0 to 8.9	7	7	7	4
Total	100	100	100	100

Interest rates on mortgage loans paid by farmers have not been affected, as yet, by the decrease in central money market rates. Since the fourth quarter of 1959, all Federal land banks have charged 6 percent on farm loans. Rates charged by reporting life insurance companies have been slightly above 6 percent on mortgage loan commitments through the first half of 1960 and are not expected to shift significantly in either direction in the second half of the year. Commercial bank rates on farm mortgages, which averaged 5.89 percent on mortgages recorded in the first quarter of 1959, will probably average somewhat higher for 1960.

Farm mortgage debt amounted to $12.3 billion on January 1, 1960, and is expected to reach $13.1 billion on January 1, 1961. Mortgage interest charges paid by farmers totaled $580 million in 1959 and are expected to be about $640 million in 1960. Both farm mortgage debts and interest charges are likely to increase in 1961, but at a slower rate than in 1960. The average interest rate on outstanding farm-mortgage indebtedness is expected to rise slightly from the average 5 percent rate on January 1, 1960.

PROPERTY TAXES

Total real estate and personal property taxes paid in 1960 are expected to be about $1,548 million, and further increases are expected in 1961. Farm property taxes have risen faster since 1947-49 than almost any other farm cost item.

Taxes levied on farm real estate in 1959 (payable largely in 1960) increased 8 percent over 1958 to a record $1.2 billion. This was the sharpest increase recorded in the last decade. Advance reports on 1960 levies indicate another increase of about 7 percent, to $1,275 million. This would bring taxes per acre to $1.19, compared with $1.11 levied in 1959, and more than double the 1947-49 average. Taxes on farm personal property have shown a parallel growth. In 1960, levies on personal property are estimated at $273 million.

The steady rise in farm property taxes during the last 18 years is a direct outgrowth of the steadily expanding revenue requirements of local governments, especially for schools. Rural communities, of course, are not alone in this regard. Total taxes paid on nonfarm property, in fact, have been rising somewhat more rapidly since World War II than those on farm property. However, the rise in taxes on nonfarm property has been accompanied by a substantial increase in new investments in homes, industrial property, and the like, thus providing a much larger tax base, while in agriculture the physical plant, especially land and buildings, has shown relatively little growth.

During recent years, market values of farm real estate have risen about as rapidly as taxes. As a result, taxes have held at around $0.90 per $100 of full value. Real estate values now have leveled off. In the year ended July 1, 1960, the gain in value was only 1 percent,compared with an annual gain of about 6 percent in each of the 3 preceding years. As a result, the rise in taxes on farm real estate has pushed the taxes per $100 of full value to $0.93 in 1959, the highest in 10 years. The 7-percent rise in tax levies anticipated for 1960, if coupled with stable or somewhat lower values for farm real estate, would raise the tax-to-value relationship to the highest level since pre-World War II.

INSURANCE

Farmers' expenditures for property and casualty insurance in 1960 probably totaled about $360 million. This is an increase of about 3 percent over last year and an increase of about 15 percent in the last 5 years. Higher costs of insurance are attributable largely to greater coverage; insurance rates per $100 of insurance have remained fairly constant.

Costs of insurance against some of the more common natural hazards, such as fire, lightning, windstorm and hail on farm buildings, household goods, and personal property (such as machinery and livestock) have been increasing. In the case of growing crops, specific-risk insurance from private insurance companies against hail damage, and Federal "all-risk" insurance against all unavoidable risks, including hail, has been expanded in recent years.

A farmer can do much to reduce his property and personal risks. It is important that he do so because insurance seldom covers the full amount of a loss. He can reduce the chances of loss from fire by proper location of buildings in relation to prevailing winds and in relation to other buildings and their flammability, and by proper selection of roofing materials, chimney and flue construction, fire stopping, lightning protection, and electrical wiring, taking into consideration probable future requirements.

Many fires result from carelessness associated with stoves, furnaces, fireplaces, stovepipes, use of petroleum, disposal of ashes, accumulation of rubbish, storage of hay (spontaneous ignition), smoking, and electrical equipment.

A farmer who has home fire-fighting equipment, such as ladders, fire extinguishers of the proper type, water under pressure (with spigots and enough hose), an ample supply of water for use by firetrucks, and an alarm system, is already doing much to reduce the probability of substantial loss from fire. A fire arrestor can be attached to the chimney to prevent sparks from falling on a wood-shingle roof; a lightning arrestor installed at the electrical service entrance will help to prevent lightning surges from damaging electrical appliances

A farmer can also help in many ways to prevent minor damage from wind. Most small losses are due to carelessness or lack of maintenance. Roofs are particularly vulnerable to damage by wind. Asphalt shingles can be cemented or otherwise fastened down, and roofs with wooden shingles can be kept in repair. Dead trees that might be blown across buildings can be removed. A poorly constructed building can be strengthened with wall bracing, rafter ties, joints, and splicing.

Even if he has no all-risk crop insurance or crop-hail insurance, a farmer can help to reduce his crop-production hazards. For example, greater stability in annual yields is associated with stripcropping, irrigation, crop rotation, or summer fallowing, and with varieties of crops that are resistant to adverse weather, disease, and pests.

In reducing his personal risks, a farmer can do much to prevent accidents to himself, his family, and his hired help. Most farm accidents are caused by carelessness. Cornpickers must be stopped before attempts are made to unclog rollers; steps can be repaired to prevent falls; tractors can be hitched lower to minimize tipping; and more care can be used in smoking and in operating motor vehicles and tractors. With the increased use of machinery and power equipment on farms, constant vigilance is necessary.

Farmers can also reduce insurance costs or reduce premiums by buying deductible insurance available for property, vehicles, and health and accident insurance. Deductible insurance is now available on comprehensive automobile insurance as well as on collision insurance. With larger amounts deductible before obtaining insurance protection, a farmer must be prepared to pay for small losses and small medical and hospital bills. Worthwhile discounts often can be obtained by paying premiums for 3 or 5 years in advance.

COSTS BY TYPE OF FARM

Total farm production expenses in 1960 are expected to be about the same as in 1959. On a per farm basis, expenses will be greater in 1960, however, because of the continued decline in number and an increase in the size of farms. Total farm output is expected to reach a new high in 1960, but because prices received will average lower than last year, gross and net farm income for the country as a whole will be about the same as in 1959. Income per farm will be up. However, there will be wide departures from this general pattern among types and locations of farms.

Total operating expenses per farm are expected to be higher in 1960 than in 1959 on each of eight important types of farms in widely separated areas for which costs and returns have been estimated for the 2 years. Increases ranged from only slightly higher operating expenses on hog-dairy farms in the

Corn Belt to 12 percent higher on the Intermountain cattle ranches. Higher prices generally prevailed for farm machinery, wage rates, and most seeds. Lower prices were paid for feed and livestock. Prices paid for fertilizer, building materials, and farm and motor supplies remained about the same. Inputs used in production continued to increase because of increases in the size of farm enterprises and more intensive production. Of the eight types of farms considered here, seven used more inputs in 1960 than in 1959. Increases ranged from about 1 to 8 percent. A decrease of a little less than 2 percent on hog-dairy farms in the Corn Belt resulted from a decline in hog production.

Operating expenses per unit of production vary considerably from year to year primarily because of the effect of weather on production. High crop yields on winter wheat and wheat-small grain-livestock farms in 1960 will result in low operating expenses per unit of production (table 11). However, in the last 25 years, costs per unit of production have generally increased and they were generally at their highest level in 1950-54. Since then, these costs have tended to level off or decline on some types of farms. From 1940 to 1950, expenditures increased rather sharply but have tended to level off since then, while production has increased.

During the last decade, operating expenses per dollar of gross farm income rose on all eight types of farms (fig. 9). The rise is likely to continue because the ratio of prices paid to prices received continues to increase more than is offset by increases in efficiency.

Input per unit of production has generally declined, thus indicating a gain in efficiency (table 12). In individual years, lower inputs per unit of production were due chiefly to favorable production conditions. But over time, they are due to gains in production efficiency. Much of this is due to a shift to labor-saving devices, better cropping practices, improved pesticides, antibiotics, seeds, and so on. Labor-saving machines have made it possible to increase the size of operation. More inputs of fertilizers, insecticides, and other pesticides have been used, and relatively greater production has been obtained.

Dairy Farms, Central Northeast

Operating expenses on specialized dairy farms in the Northeast probably will be about 6 percent higher in 1960 than a year earlier (table 13). About one-sixth of the increase will be due to slightly higher prices paid for inputs and the remainder to greater quantities of inputs purchased. These additional expenditures will be offset by a 6-percent increase in production in 1960. Therefore, operating expenses per unit of production will about equal the record set last year.

Prices received in 1960 for products sold by these dairymen are expected to be about 4 percent below those received in 1959. With slightly higher prices paid for items used in production, the net result will be a 5-percent decrease in the ratio of prices received to prices paid. Consequently, net incomes in 1960 may average about 4 percent below incomes received in 1959.

Table 11. - Operating expenses per unit of production, specified types of commercial farms, 1959, with comparisons 1/

(Index numbers 1947-49=100)

Type and location of farm	Average				1959 2/
	1937-41	1945-49	1950-54	1955-59	
Dairy farms:					
Central Northeast	52	93	104	104	114
Eastern Wisconsin 3/	46	91	106	103	102
Western Wisconsin 3/	45	93	101	95	99
Dairy-hog farms:					
Southeastern Minnesota	45	92	109	104	108
Corn Belt farms:					
Hog-dairy	50	91	108	100	104
Hog-beef raising	50	91	108	100	108
Hog-beef fattening	44	87	116	113	116
Cash grain	49	91	122	120	130
Poultry farms:					
New Jersey (egg producing)	---	96	96	85	81
Cotton farms:					
Southern Piedmont	49	94	114	103	103
Black Prairie, Texas	38	93	123	117	108
High Plains, Texas (nonirrigated)	44	97	159	106	93
High Plains, Texas (irrigated)	---	100	117	106	101
Mississippi Delta (small)	---	91	131	131	128
Mississippi Delta (large-scale)	---	98	108	91	82
Peanut-cotton farms:					
Southern Coastal Plains	---	93	127	125	130
Tobacco farms:					
Tobacco-livestock, Kentucky	47	96	112	135	141
Tobacco-cotton, North Carolina	---	95	118	120	125
Spring wheat farms, Northern Plains:					
Wheat-small grain-livestock 3/	62	87	117	102	134
Wheat-corn-livestock 3/	60	86	121	117	148
Wheat-roughage-livestock	87	87	122	123	181
Winter wheat farms:					
Wheat, Southern Plains 3/	91	91	122	129	111
Wheat-grain sorghum, Southern Plains	91	96	168	143	102
Wheat-pea, Washington and Idaho 3/	60	87	109	114	94
Wheat-fallow, Washington and Oregon 3/	64	88	115	122	110
Cattle ranches:					
Northern Plains	66	84	123	128	147
Intermountain Region	48	88	145	138	148
Southwest	---	93	138	113	100
Sheep ranches:					
Northern Plains	51	85	117	109	106
Southwest	---	89	131	106	82

1/ Exclusive of charges for capital and unpaid labor.
2/ Preliminary.
3/ Revised.

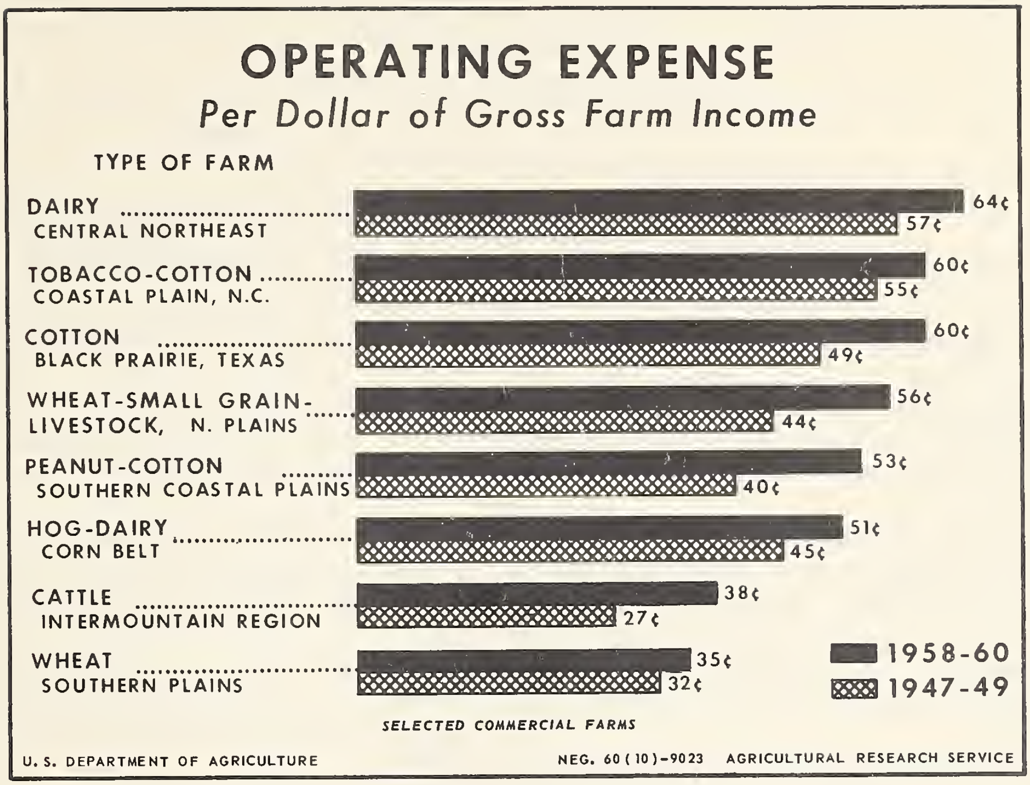

Figure 9

Total milk produced on these farms in 1960 will exceed the 1950-59 average by about 30 percent. One-third of this is due to an increase in milk production per cow, the rest to an increase in number of cows milked. During the same period, prices received for milk rose slightly and net farm income rose by about 8 percent.

Hog-Dairy Farms, Corn Belt

Operating expenses on hog-dairy farms are expected to be about the same in 1960 as a year earlier and 50 percent above those in 1947-49. Higher prices paid in 1960 for machinery, hired labor, seed, and fertilizer were partly offset by reduced quantities of these purchased inputs. Expenditures for feed are expected to be down about 7 percent from a year earlier because of an expected 10-percent reduction in hogs produced.

A decrease in net farm production resulting from lower corn yields and lower hog production will cause operating expenses per unit of production in 1960 to rise about 7 percent above the previous year (table 13).

Prices received by these farmers in 1960 are expected to average near those in 1959. Lower prices for corn, beef cattle, and cull cows will be partly offset by higher prices for hogs, chickens, and eggs. No change in prices received for dairy products is expected.

Table 12. - Input per unit of production, specified types of commercial farms, 1959, with comparisons 1/

(Index numbers 1947-49=100)

Type and location of farm	Average				1959 2/
	1937-41	1945-49	1950-54	1955-59	
Dairy farms:					
Central Northeast	104	101	92	87	88
Eastern Wisconsin 3/	101	101	90	82	76
Western Wisconsin 3/	104	103	87	76	75
Dairy-hog farms:					
Southern Minnesota	104	102	89	77	74
Corn Belt farms:					
Hog-dairy	111	101	92	83	79
Hog-beef raising	109	101	93	81	81
Hog-beef fattening	107	98	98	93	86
Cash grain	101	99	99	88	92
Poultry farms:					
New Jersey (egg-producing)	---	105	95	93	91
Cotton farms:					
Southern Piedmont	108	99	99	85	82
Black Prairie, Texas	104	107	108	99	85
High Plains, Texas (nonirrigated)	105	117	159	99	81
High Plains, Texas (irrigated)	---	116	111	96	87
Mississippi Delta (small)	---	103	111	100	93
Mississippi Delta (large-scale)	---	105	98	86	76
Peanut-cotton farms:					
Southern Coastal Plains	---	104	101	87	87
Tobacco farms:					
Tobacco-livestock, Kentucky	112	102	97	108	110
Tobacco-cotton, North Carolina	---	101	101	96	99
Spring wheat farms, Northern Plains:					
Wheat-small grain-livestock 3/	148	97	109	87	108
Wheat-corn-livestock 3/	126	96	106	99	124
Wheat-roughage-livestock	176	96	109	106	152
Winter wheat farms:					
Wheat, Southern Plains 3/	176	98	107	108	84
Wheat-grain sorghum, Southern Plains	184	106	152	127	82
Wheat-pea, Washington and Idaho 3/	115	93	90	90	74
Wheat-fallow, Washington and Oregon 3/	124	97	97	101	90
Cattle ranches:					
Northern Plains	130	95	99	99	108
Intermountain Region	103	98	106	90	86
Southwest	---	98	118	110	87
Sheep ranches:					
Northern Plains	109	93	96	88	81
Southwest	---	95	117	109	82

1/ Includes charges for capital and unpaid labor.
2/ Preliminary.
3/ Revised.

Net farm income on these hog-dairy farms in 1960 is expected to be about 11 percent below 1959 and 10 percent below the 1950-59 average. Reduced hog production, lower crop yields, and an increase in prices paid are largely responsible for the lower income.

Cotton Farms, Black Prairie, Texas

Total operating expenses for 1960 on cotton farms in the Black Prairie of Texas are estimated to be 3 percent higher than in 1959 (table 13). An increase of a little more than 4 acres of cotton per farm is largely responsible for the higher expense. Operating expenses per unit of production, however, are expected to be 7 percent higher, as cotton yields are down about 10 percent from 1959.

With lower cotton yields in 1960, the index of input (total costs at 1947-49 average prices) per unit of production will be up about 5 points from 1959 but still below the average for 1955-59 (table 12).

Farm production probably will be down 3 percent; and, if the price received for cotton lint and cottonseed in 1960 average the same as in mid-October, net farm income will be about 15 percent less than in 1959.

Prices paid for goods and services used in production are expected to increase slightly from those of 1959 with prices for hired labor, machinery, fuel, and machinery repairs higher in 1960.

Peanut-Cotton Farms, Southern Coastal Plains

Total operating expenses in 1960 on peanut-cotton farms in the Southern Coastal Plains are expected to increase nearly 6 percent above those in 1959 (table 13). Slight increases in acreages of cotton and peanuts and in prices paid for goods and services are responsible for the higher expense.

The yield of cotton and peanuts also increased in 1960, and as a result of a greater increase in production than in operating expenses, expense per unit of production is expected to be about 5 percent lower than in 1959.

If the prices of cotton lint and cottonseed remain at the mid-October level, prices received for products sold on these farms probably will average slightly lower than in 1959. Farm production will be up 12 percent, and net farm income probably will increase by more than 16 percent.

With the increase in acres harvested in 1960, total inputs went up about 2 percent. However, higher production more than offsets this increase, and input per unit of production probably will be about 8 percent less than in 1959.

Tobacco-Cotton Farms, Coastal Plain, North Carolina

Operating expenses on tobacco-cotton farms in the Coastal Plain of North Carolina probably will be about 7 percent higher in 1960 than a year earlier (table 13). This increase is due primarily to the use of more inputs but also to an increase in prices paid for goods and services of nonfarm origin.

Table 13. - Costs and returns, selected types of farms, 1959 and indications of 1960

Item	Unit	Dairy farms, Central Northeast		Hog-dairy farms, Corn Belt		Cotton farms, Black Prairie, Texas		Peanut-cotton farms, Southern Coastal Plains	
		1959 1/	1960	1959 1/	1960	1959 1/	1960	1959	1960
		Number of cows		Acres of cropland		Acres of cropland		Acres of cropland	
Size of farm	---	27.8	29.0	105	105	115	118	72	73
Total labor used	Hour	4,370	4,470	4,330	4,220	2,980	3,000	3,810	3,890
Hired labor	do.	830	850	430	420	720	670	880	990
Total farm capital, Jan. 1	Dollar	39,230	41,020	52,830	52,700	34,900	37,860	15,840	16,550
Land and buildings	do.	20,440	21,120	35,240	36,340	29,070	31,920	11,320	11,990
Machinery and equipment	do.	6,930	7,320	6,450	6,760	3,420	3,580	2,670	2,890
Livestock	do.	9,120	9,760	7,870	6,370	1,940	1,840	1,390	1,240
Crops	do.	2,740	2,820	3,270	3,230	470	520	460	430
Gross farm income	do.	12,123	12,459	12,867	12,220	6,413	6,172	5,838	6,432
Operating expenses	do.	7,759	8,251	6,864	6,882	3,930	4,062	3,401	3,595
Net farm income	do.	4,364	4,208	6,003	5,338	2,483	2,110	2,437	2,837
Index numbers (1947-49=100):									
Gross farm income	Percent	137	141	126	120	105	101	153	168
Net farm income	do.	114	110	105	93	80	68	105	123
Net farm production	do.	142	150	145	135	121	117	173	194
Crop yield per acre	do.	126	131	129	122	120	107	139	156
Production per man-hour of labor	do.	171	176	153	146	206	197	183	201
Production per unit of input	do.	113	115	125	119	117	111	115	125
Operating expense per unit of production	do.	114	114	104	111	108	116	130	124
Total cost per unit of production	do.	123	124	108	118	116	134	109	104
Input per unit of production	do.	88	87	79	83	85	90	87	80
Prices received for products sold	do.	99	95	81	81	84	84	87	86
Prices paid, including wages	do.	119	120	121	123	120	121	114	115

- Continued

Table 13. - Costs and returns, selected types of farms, 1959 and indications of 1960 - Continued

Item	Unit	Tobacco-cotton farms, Coastal Plain, N. C.		Wheat-small grain-livestock farms, Northern Plains		Wheat farms, Southern Plains		Cattle ranches, Intermountain Region	
		1959	1960	1959 1/	1960	1959	1960	1959	1960
		Acres of cropland		Acres of cropland		Acres of cropland		Number of cows	
Size of farm		46	46	399	410	542	546	128.5	137.9
Total labor used	Hour	5,750	5,850	2,730	2,780	2,350	3,160	5,000	5,020
Hired labor	do.	2/3,250	2/3,310	420	420	340	350	1,000	1,020
Total farm capital, Jan. 1	Dollar	24,870	25,230	50,800	51,620	92,460	94,330	89,920	88,230
Land and buildings	do.	20,300	20,700	33,980	34,910	74,540	76,630	33,270	34,770
Machinery and equipment	do.	3,110	3,180	11,150	11,350	9,860	9,960	5,490	5,730
Livestock	do.	720	660	3,970	3,320	6,480	5,980	47,350	42,060
Crops	do.	740	690	1,700	2,040	1,580	1,760	3,810	5,670
Gross farm income	do.	7,333	8,226	8,604	10,561	14,935	17,479	19,349	16,905
Operating expenses	do.	4,615	4,936	5,728	5,877	5,902	6,040	7,022	7,861
Net farm income	do.	2,718	3,290	2,876	4,684	9,033	11,439	12,327	9,044
Index numbers (1947-49=100):									
Gross farm income	Percent	104	116	81	99	107	125	165	144
Net farm income	do.	85	103	47	76	92	117	142	104
Net farm production	do.	95	104	94	122	120	159	144	141
Crop yield per acre	do.	124	139	96	130	144	179	3/ 93	3/ 93
Production per man-hour of labor	do.	123	132	113	144	155	153	138	134
Production per unit of input	do.	101	109	92	117	113	136	116	112
Operating expense per unit of production	do.	125	123	134	106	111	87	148	167
Total cost per unit of production	do.	133	129	145	119	121	109	123	138
Input per unit of production	do.	99	92	108	84	84	71	86	90
Prices received for products sold	do.	113	115	84	79	88	80	111	96
Prices paid, including wages	do.	2/ 126	2/ 133	126	128	125	127	136	147

1/ Revised. 2/ Includes cropper labor. 3/ Range condition.

These farmers increased their purchases of tractors and other farm equipment in response to a good tobacco crop. Purchases of farm machinery exceeded depreciation for the first time in 4 years. Estimates of sales of tobacco harvesters this year are higher than in any year since 1956.

Although the acreage of tobacco remained about the same in 1960 as in 1959, yields increased about 240 pounds per acre. They are estimated to be about 1,780 pounds, equaling the record yield of 2 years earlier. The quality of tobacco is considerably better than last year. Prices received for individual grades are above the level of support. Price supports in 1960 for eligible kinds of tobacco are the same as for 1959. The higher yield per acre, accompanied by a price increase of 2 cents a pound, is largely responsible for the 20-percent increase in net farm income.

Wheat-Small Grain-Livestock Farms, Northern Plains

Total operating expenses on wheat-small grain-livestock farms in the Northern Plains are estimated to average about $5,900 in 1960, up 3 percent from 1959. Costs of operating farm machinery (which constituted about two-thirds of the total operating expenses) will be about 5 percent higher in 1960.

Operating expenses are higher largely because of the additional machinery inputs required to produce and harvest the larger 1960 crop and an increase of 1 to 2 percent in prices paid for goods and services -- a new record high of 28 percent above the 1947-49 average. Except for hired labor, prices of most of the major items purchased by these farmers were higher in 1960 than in 1959.

Crop yields averaged 35 percent higher in 1960 than in 1959, thus bringing about a 30-percent increase in net farm production. As a result, operating expenses per unit of production were 21 percent lower than in 1959(tables 11 and 13).

Net farm income is expected to be nearly $4,700 in 1960 compared with about $2,900 in 1959, despite a decline of about 6 percent in prices received including a 10-percent decline in prices received for cattle.

Winter Wheat Farms, Southern Plains

Total operating expenses per farm in 1960 are expected to average 2 to 3 percent higher than in 1959 (table 13). About half of this increase is the result of higher prices for cost items and half from the increase in the quantities used.

Prices paid for feed purchased are expected to average slightly lower in 1960 than in 1959. Prices of spray materials and fertilizers are expected to be a little lower. Prices of sorghum seed will average higher in 1960 because of the increased use of hybrid seed. Fuel and machinery prices, wage rates of hired labor, and taxes also are expected to be slightly higher in 1960.

Crop yields in 1960 on these farms are about equal to the record high yields of 1958. In 1960, wheat yields averaged 30 bushels per harvested acre compared with 22 bushels in 1959. Yields of grain sorghum are expected to average 29 bushels in 1960 compared with 28 bushels in 1959. The harvested acreage is expected to be about 5 percent lower in 1960.

Net production per farm in 1960 is expected to be a third higher than in 1959 and at an all-time high. Production per unit of inputs in 1960 is expected to equal the record established in 1958.

Net farm income in 1960 is expected to average $11,400 compared with $9,000 in 1959.

Cattle Ranches, Intermountain Region

Total operating expenses on Intermountain cattle ranches probably will average about 12 percent higher in 1960 than a year earlier. The chief factors responsible for this increase are an increase of about 8 percent in prices paid for goods and services used in production, and an increase of about 4 percent in the quantity of inputs purchased.

Production per ranch is expected to be slightly lower than a year earlier. Consequently, input per unit of production is expected to be slightly higher (probably 4 or 5 percent) than in 1959 (table 13).

Despite the drought in 1959 in parts of this area, ranchers continued to build up breeding herds. However, as the drought continued a second year, and became more intensified in some areas, ranchers began to cull their breeding herds. Also, relatively more young animals were sold in 1960 and at lighter weights than in 1959. Probably, the expected decline in prices paid for feeder cattle and in prices for cattle in general was another factor that prompted ranchers to discontinue further increases in their breeding herds.

Prices received for cattle sold on these ranches in 1960 probably will average about 14 percent lower than a year ago. But total weight of cattle sold in 1960 is expected to average about 12 percent above a year ago. As a result, cash receipts in 1960 probably will average around 4 percent below a year earlier. However, because inventories rose in 1959, whereas they are not doing so in 1960, gross ranch income may be 10 to 15 percent below that of 1959.

Quantities of hay purchased in 1960 are expected to increase around 15 percent from a year earlier and prices paid for hay probably will average nearly a third higher. But purchases of items of nonfarm origin are expected to remain about the same as a year earlier. Net ranch income probably will average a fourth lower than a year ago, but except for 1959 and 1958, it will be the highest since 1952 and well above the 1947-49 average.

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